

## **Amendments to the Claims**

### **Listing of Claims:**

1 – 29 (Canceled)

30. (New) A method of analyzing an error event occurring on a distributed network that includes a plurality of processors, the method comprising:

checking the network to determine if an error event has occurred and if the error event has occurred, reporting the error event for an offline analysis to be performed;

determining during the offline analysis if the error event is critical and whether or not online processing is possible;

if the error event is critical, establishing a conditional probability history table containing information concerning events associated with the critical event and the conditional probabilities of associated events during offline processing;

producing a local counter value for each of the plurality of processors in the distributed network;

if online analysis is possible, determining during the online analysis a type of event that occurred and determining whether to produce a global alert, synch stop, or machine check alert signal based upon the type of event that occurred;

dynamically filtering events based on a recorded history of information associated with the occurrence of events such that only certain critical events that produce global interrupts are reported to the system monitor;

synchronizing the local counter value at each of the processors with a global clock;

freezing the local counter value for a processor when a critical event associated with the processor occurs;

periodically polling the local counters with a system monitor;

performing conditional probability lookups in a conditional probability history table during the online analysis to determine if a probability that a critical event will occur exceeds a threshold level;

performing preventative action if said threshold level is exceeded;

determining the type of event that occurred and whether or not to produce a global alert, synch stop or machine check alert signal; and

using offline analysis to update a conditional probability history table and to determine conditional probabilities and to determine when online analysis of a problem is possible.